

(19)



(11)

**EP 2 420 837 A3**

(12)

**EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**30.05.2012 Bulletin 2012/22**

(51) Int Cl.:  
**G01N 33/574 (2006.01)**

(43) Date of publication A2:  
**22.02.2012 Bulletin 2012/08**

(21) Application number: **11180206.2**

(22) Date of filing: **28.09.2006**

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR  
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI  
SK TR**

(30) Priority: **02.02.2006 US 764356 P**  
**19.10.2005 EP 05292200**

(62) Document number(s) of the earlier application(s) in  
accordance with Art. 76 EPC:  
**06809203.0 / 1 943 520**

(71) Applicant: **INSERM (Institut National de la Santé et  
de la  
Recherche Médicale)**  
**75013 Paris (FR)**

(72) Inventors:  
• **Galon, Jérôme**  
**75270 PARIS Cedex 06 (FR)**  
• **Pages, Franck**  
**75270 PARIS Cedex 06 (FR)**  
• **Fridman, Wolf-Herman**  
**75270 PARIS Cedex 06 (FR)**

(74) Representative: **Cabinet Plasseraud**  
**52, rue de la Victoire**  
**75440 Paris Cedex 09 (FR)**

(54) **An in vitro method for the prognosis of progression of a cancer and of the outcome in a patient and means for performing said method**

(57) The present invention relates to the prognosis of the outcome of a cancer in a patient, which prognosis is based on the quantification of one or several biological markers that are indicative of the presence of, or alter-

natively the level of, the adaptive immune response of said patient against said cancer.

**EP 2 420 837 A3**



## EUROPEAN SEARCH REPORT

Application Number  
EP 11 18 0206

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	<p>DATABASE MEDLINE [Online] US NATIONAL LIBRARY OF MEDICINE (NLM), BETHESDA, MD, US; 16 March 2005 (2005-03-16), CAI XIAO-YAN ET AL: "[Relationship between dendritic cells and memory T lymphocytes in tumor site and prognosis of hepatocellular carcinoma].", XP002674044, Database accession no. NLM15932729 * the whole document *</p> <p>&amp; CAI XIAO-YAN ET AL: "[Relationship between dendritic cells and memory T lymphocytes in tumor site and prognosis of hepatocellular carcinoma].", ZHONGHUA YI XUE ZA ZHI 16 MAR 2005 LNKD-PUBMED:15932729, vol. 85, no. 10, 16 March 2005 (2005-03-16), pages 671-675, XP008151043, ISSN: 0376-2491</p> <p>-----</p>	1-6	<p>INV. G01N33/574</p>
A	<p>AKITAKE SUZUKI ET AL: "Mature dendritic cells make clusters with T cells in the invasive margin of colorectal carcinoma", THE JOURNAL OF PATHOLOGY, vol. 196, no. 1, 1 January 2001 (2001-01-01), pages 37-43, XP55024547, ISSN: 0022-3417, DOI: 10.1002/path.1018 * the whole document *</p> <p>-----</p> <p style="text-align: center;">-/--</p>	1-6	<p>TECHNICAL FIELDS SEARCHED (IPC)</p> <p>G01N</p>
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		19 April 2012	C.F. Angioni
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p>			

 2  
EPO FORM 1503 03.02 (P04C01)



## EUROPEAN SEARCH REPORT

Application Number  
EP 11 18 0206

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	JOSE MANUEL CÔZAR ET AL: "Analysis of NK cells and chemokine receptors in tumor infiltrating CD4 T lymphocytes in human renal carcinomas", CANCER IMMUNOLOGY, IMMUNOTHERAPY, SPRINGER, BERLIN, DE, vol. 54, no. 9, 1 September 2005 (2005-09-01), pages 858-866, XP019333160, ISSN: 1432-0851, DOI: 10.1007/S00262-004-0646-1 * the whole document *	1-6	
A	LIU Y ET AL: "Chemokine receptors support infiltration of lymphocyte subpopulations in human hepatocellular carcinoma", CLINICAL IMMUNOLOGY, ACADEMIC PRESS, US, vol. 114, no. 2, 1 February 2005 (2005-02-01), pages 174-182, XP004743299, ISSN: 1521-6616, DOI: 10.1016/J.CLIM.2004.10.006 * the whole document *	1-6	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
Place of search The Hague		Date of completion of the search 19 April 2012	Examiner C.F. Angioni
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... &amp; : member of the same patent family, corresponding document</p>			

2

EPO FORM 1503 03.02 (P04C01)



## EUROPEAN SEARCH REPORT

Application Number  
EP 11 18 0206

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	JOSE MANUEL CÔZAR ET AL: "Analysis of NK cells and chemokine receptors in tumor infiltrating CD4 T lymphocytes in human renal carcinomas", CANCER IMMUNOLOGY, IMMUNOTHERAPY, SPRINGER, BERLIN, DE, vol. 54, no. 9, 1 September 2005 (2005-09-01), pages 858-866, XP019333160, ISSN: 1432-0851, DOI: 10.1007/S00262-004-0646-1 * the whole document *	1-6	
A	LIU Y ET AL: "Chemokine receptors support infiltration of lymphocyte subpopulations in human hepatocellular carcinoma", CLINICAL IMMUNOLOGY, ACADEMIC PRESS, US, vol. 114, no. 2, 1 February 2005 (2005-02-01), pages 174-182, XP004743299, ISSN: 1521-6616, DOI: 10.1016/J.CLIM.2004.10.006 * the whole document *	1-6	
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search <b>The Hague</b>		Date of completion of the search <b>19 April 2012</b>	Examiner <b>C.F. Angioni</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

2  
EPO FORM 1503 03.82 (P04C01)